

REMARKS

By this amendment, claims 9 and 11-22 are pending, with claims 9 and 22 being amended and claim 23 added.

The courtesies extended to applicant's representative during the interview of March 3, 2004 are acknowledged with appreciation.

The Examiner rejected claims 9-21 as being indefinite. The Examiner stated that both claims 9 and 21 had the term "immediate," rendering the meaning of the claims unclear. By this Amendment, the term "immediate" has been deleted, and the claims now state that the temperature is not held constant during the entire process. In other words, the temperature increases to the peak temperature and then begins to decrease and at no time is any particular temperature maintained. The Examiner also rejected claim 10 as being indefinite. By this Amendment, claim 10 has been cancelled. Also, the Examiner stated that the claims were indefinite for not reciting the process steps in a positive manner. The claims have been amended to cure this deficiency.

The Examiner rejected claims 9-21 as being unpatentable over De Stoutz (Stoutz) in view of applicant's admissions on pages 1-5 of the instant specification. This rejection is respectfully traversed.

The Examiner refers to Figure 5 of Stoutz as the pasteurization of a beverage cooled immediately after reaching the maximum temperature, employing the use of recuperators and various heating phases. The Examiner then notes the prior art equation for determining pasteurizing units and concluded it would have been obvious to utilize the notoriously well known prior art equation in order to optimize the pasteurization process of Stoutz. However, the equations given in paragraph 12 and paragraph 18 both rely upon the heat holding time and the difference between the heat holding temperature and 60°C when calculating the pasteurization unit. As summarized in the table in paragraph 0044 and discussed in paragraph 0045, conventional calculations of pasteurization units accounted for only those units applied in the holding chamber where temperature was held constant at a certain temperature above 60°C for a certain amount

of time. In the calculation, pasteurization units applied during heating and cooling were disregarded. Therefore, applying this equation to the pasteurization process depicted in Figure 5 of Stoutz results in zero pasteurization units, there being no heat holding time or temperature.

Claims 9 and 21 now specify that the drink is not maintained at any given temperature, this limitation taking the place of the term "immediately." Applicant's invention is the first to calculate pasteurization units in a thermal non-steady state process. In applicant's method, the temperature is always changing and pasteurization units applied during the temperature change are accounted for to insure that only the correct number of pasteurization units is applied.

New claim 22 specifies that, after calculation of the number of desired pasteurization units and choosing heating time, cooling time and maximum temperature, to theoretically achieve the desired number of pasteurization units, the actual number of pasteurization units is calculated and summated. The calculated maximum temperature is adjusted upwardly or downwardly to insure that the actual pasteurization units matches the theoretical pasteurization units. This feature is discussed in paragraph 0031 of the specification. Rather than theoretically calculate the heating time, cooling time and maximum temperature alone, the theoretical parameters are calculated, but compared against actual results to insure that the drink is not over pasteurized. This methods accounts for variations in the heating and cooling steps not accounted for in the calculations of time and temperature.

Reconsideration of the rejection in view of the amendments is respectfully requested. The claims are allowable over the prior art and favorable action is eagerly and earnestly solicited. If any issues remain, and the Examiner believes a telephone conversation would resolve such issues, the Examiner is urged to contact the undersigned attorney.

A two month extension of time accompanies this response. If any additional fees are due and owing, the Commissioner is authorized to charge Deposit Account 08-2455.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Christopher J. McDonald", written over a horizontal line.

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April 26, 2004

Attorney Docket No.: A-8660.RCE/bh